

CIRCUIT AND METHOD FOR CONTROLLING
A SYNCHRONOUS RECTIFIER CONVERTER

ABSTRACT OF THE DISCLOSURE

For use in a power system having a power train, a rectifier
5 having an input and an output and a method of controlling the
rectifier. The rectifier comprises: (1) switching circuitry
coupled between the input and the output, the switching circuitry
adapted to operate in selected one of (a) a bidirectional mode of
operation and (b) an unidirectional mode of operation to rectify
10 substantially alternating current at the input to produce
substantially direct current at the output; and (2) control
circuitry coupled to a control input of the switching circuitry,
the control circuitry capable of sensing a characteristic of the
power system and transitioning the switching circuitry between the
15 bidirectional mode and the unidirectional mode as a function of the
characteristic thereby to prevent substantial reverse power flow
through the rectifier.